

Appl. No. 09/696,566
Amdt. dated 11/14/05
Reply to the Advisory Action of 10/24/2005

REMARKS

Reexamination and reconsideration of this application as amended is requested. By this Amendment, Claims 1, 3, 6, 8, 13, and 17 have been amended. No claims have been canceled. After this Amendment, Claims 1-20 remain pending in this application. Applicants believe that Claims 1-20 now recite in allowable form.

Amendment to the Specification

The Applicant has amended the specification under C.F.R. § 1.78 to claim priority from the following prior U.S. Patent Applications:

- U.S. Patent Application No. 09/240,546, entitled "Reliable Multicast For Small Groups" filed on January 29, 1999, now issued as U.S. Patent No. 6,415,312;
- U.S. Patent Application No. 09/240,549, entitled "Multicast Support For Small Groups", filed on January 29, 1999, now issued as U.S. Patent No. 6,502,410;
- U.S. Patent Application No. 09/329,101, entitled "System For Multicast Communications In Packet Switched Networks" filed on June 9, 1999, now issued as U.S. Patent No. 6,625,773,

All three of these now issued U.S. Patents are all assigned to the same assignee as the present application. Under C.F.R. § 1.78:

a nonprovisional application ... may claim an invention disclosed in one or more prior-filed copending nonprovisional applications...In order for an application to claim the benefit of a prior-filed copending nonprovisional application or international application designating the United States of America, each prior-filed application must name as an inventor at least one inventor named in the later-filed application and disclose the named inventor's invention claimed in at least one claim of the later-filed application in the manner provided by the first paragraph of 35 U.S.C. 112. ...[A]ny nonprovisional application ...claiming the benefit

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of one or more prior-filed copending nonprovisional applications...must contain or be amended to contain a reference to each such prior-filed application, identifying it by application number (consisting of the series code and serial number) ...indicating the relationship of the applications...This reference must be submitted during the pendency of the later-filed application. If the later-filed application is an application filed under 35 U.S.C. 111(a), this reference must also be submitted within the later of four months from the actual filing date of the later-filed application or sixteen months from the filing date of the prior-filed application...The time periods in this paragraph do not apply if the later-filed application is...An application filed under 35 U.S.C. 111 (a) before November 29, 2000..."

U.S. Patent Nos. 6,415,312, 6,502,410, 6,625,773 were co-pending at the time of filling the present application. Additionally, the present application was filed on October 25, 2000. Therefore, the requirement of submitting the reference to the co-pending applications "within the later of four months from the actual filing date of the later-filed application or sixteen months from the filing date of the prior-filed application" does not apply.

Imai was filed on June 9, 2000, and the present application now claims a priority date of January 29, 1999. Therefore, the Applicant respectfully submits that the Imai reference is disqualified as a prior art reference.

Claims Rejection under 35 U.S.C. §103

(2-3) The Examiner rejected Claims 1, 3, 6, 8, 10, 13-15, and 17-19 under 35 U.S.C. §103(a), as being unpatentable over Haggerty et al. (U.S. Patent No. 6,331,983) in view of Hardjono (U.S. Patent No. 6,643,773), and further in view of Imai et al. (U.S. Patent No. 6,862,279).

Applicant has amended independent Claims 1, 3, 6, 8, 13, and 17 to more clearly recite the present invention. Amended Claims 1, 3, and 6 now more clearly recite "the plurality of destinations, the plurality of destinations corresponding to a plurality of

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destination network addresses". Amended Claims 1, 3, 6, 8, 13, and 17 now more clearly recite "wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet". No new matter was added. Support for these amendments may be found in the specification as originally filed. See for example, incorporated U.S. Patent No. 6,625,773, column 3, lines 30-67 to column 4, lines 1-52; col. 5, lines 20-28.

The Examiner concluded that Haggerty teaches the present invention as recited for Claims 1, 3, 6, 8, 13, and 17, and cited several paragraphs in Haggerty in support thereof. Applicant respectfully disagrees with the Examiner. In particular, the Examiner repeated his assertions from the previous Office Action that Haggerty teaches the following in Claim 1:

"receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of destinations"

The Examiner also repeated the same for the following element of Claims 3 and 6:

"a mail message with addresses corresponding to a plurality of destinations,"

The Examiner, once again, relied upon col. 11, line 60 to col. 12, line 15 and col. 12, line 55 to col. 13, line 12 of Haggerty, to reject the above elements of Claims 1, 3, and 6.

With respect to Claim 1, the Applicant would like to clearly point out that Haggerty does not teach "receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of destinations". The arguments made on pages 9-10 in the Response With Amendment dated May 25, 2005 are applicable here and will not be repeated. However, additional arguments are given below.

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The Examiner relies upon col. 11, line 60 to col. 12, line 15 and col. 12, line 55 to col. 13, line 12 of Haggerty stating that Haggerty "receiv[es] multicast packet destinations IP addresses of a multicast group". The citations of Haggerty given by the Examiner merely state that multicast packets are propagated over the network. See Haggerty at col. 11, lines 60-62. The Applicant respectfully suggests that the Examiner is mischaracterizing Haggerty. Haggerty teaches a multicast packet that has a single multicast group address. In fact, Haggerty explicitly states "to send an IP multicast datagram (packet), the sender specifies the IP multicast group address". See Haggerty at col. 3, lines 66-67). The final destinations are not specified by the sender, only the multicast group address. Also, please note that the sender in traditional multicast, such as taught in Haggerty, is not a user. The sender is a multicast server device in the network. Also, using traditional multicast, as taught by Haggerty, is inappropriate for distributing mail since in traditional multicast the sender (e.g., a multicast server device) does not associate any particular destinations with a message.

According to an embodiment of the presently claimed invention, on the other hand, the sender (i.e., including the user) specifically associates the destinations, by their destination addresses, with the mail message created by the sender. Therefore, with respect to claim 1, Haggerty does not teach, anticipate or suggest "receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of destinations" as recited by the present invention.

Furthermore, col. 11, line 60, to col. 12, line 15, and col. 12, line 55, to col. 13, line 12, of Haggerty simply teach that the multicast packet is routed to subscribers of a multicast group. MCast routers know which local host is joined to which multicast group. The MCast router uses this knowledge to send the content to the local hosts. The multicast packet only has a single multicast group address and not a plurality of destinations. It is the MCast router that includes the information about who specifically receives the information. In the present invention, the plurality of destinations that are to

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receive the information is associated by the sender, i.e., including the user, and the plurality of destination addresses is included with the mail message. Therefore, the present invention distinguishes over Haggerty for at least this reason as well.

As stated above, the Applicant has amended claims 1, 3, and 6 to similarly recite “...wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet”. Haggerty explicitly teaches that a multicast packet is transmitted with a single multicast group address. See Haggerty, for example, at col. 11, lines 50-55. The local hosts receive the multicast packet. See Haggerty at col. 11, lines 56-57. The hosts, which subscribe to the multicast group, do not receive ordinary unicast packets, they receive a multicast packet. Therefore, the present invention distinguishes over Haggerty for at least this reason as well.

The Examiner goes on to state that Haggerty teaches the claim element:

“sending a single copy of the mail message, in a multicast packet, across the network via at least one intermediate node to destinations corresponding to a plurality of destination network addresses using a reliable multicast technique”

and cites col. 6, lines 12-22, and col. 13, lines 36-45, in support thereof. Applicant respectfully disagrees. Haggerty teaches sending a single copy of each multicast packet onto a local subnet only if one of its local hosts is a member of the respective multicast group. See Haggerty at col. 12, lines 1-15. As discussed above, the MCast router keeps track of its local hosts and uses this information to forward a copy to local hosts. In other words, Haggerty does not use information in the multicast packet to forward a copy onto a local subnet. The multicast packet in Haggerty includes a single multicast group address that allows the multicast packet to be transmitted to the multicast group. The single multicast group address is not used for sending the multicast packed to local host subscribers. The MCast router then uses its own information to forward a copy of the

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packet onto its local subnet. Also, as described above, Haggerty is completely inappropriate for distributing mail since in a mail system the sender/user specifies the receivers while in traditional multicast, such as in Haggerty, the receivers are the ones that individually subscribe to receive a multicast message and the sender (e.g., the multicast server) does not control (does not affirmatively associate the message with) who will be the specific plurality of recipients of the multicast message.

The presently claimed invention, on the other hand, recites "sending a single copy of the mail message, in a multicast packet and using a reliable multicast technique, across the network via at least one intermediate node to the plurality of destinations, the plurality of destinations corresponding to a plurality of destination network addresses, wherein the multicast packet includes a packet header comprising the plurality of destination network addresses..." The mail message is associated with destinations corresponding to destination network address. This is different than Haggerty.

Nowhere does Haggerty teach that a multicast packet includes "a packet header comprising the plurality of destination network addresses". A destination network address is the actual physical address of the device that is to receive the mail message. As stated above, Haggerty only teaches that the multicast packet contains a single multicast group address. Haggerty does not teach or suggest that the physical addresses of the plurality of destinations are included. Furthermore, nowhere does Haggerty teach that a single copy of the mail message, in a multicast packet, is sent across the network via at least one intermediate node to destinations corresponding to a plurality of destination network addresses, which are included in the multicast packet. Haggerty only teaches that a multicast packet containing a single group multicast address is received by the MCast router that has local host information. The local host information is used by the MCast router to send a copy of the multicast packet onto the local subnet. Therefore, the present invention distinguishes over Haggerty for at least this reason as well.

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The Examiner goes on to repeat his assertion from the previous Office Action that Hardjono discloses that multicasting is well-known in the art for transmitting data messages such as email messages to selected groups of users across a network like the Internet and relied upon the Abstract and col. 1, lines 13-25 of Hardjono in support thereof. Applicant respectfully disagrees with the Examiner and repeats the arguments made in the Response With Amendment date May 25, 2005.

Hardjono merely mentions in the background section “[o]ne simple example of multicasting entails transmitting an Email message to a plurality of users that each are on a mailing list.” See Hardjono at col. 1, lines 15-17. Hardjono never again mentions an email message nor how to use multicast with an email message. Therefore, Hardjono is not enabling with respect to using multicast with an email message. “All the limitations of a claim must be considered when weighing the differences between the claimed invention and the prior art in determining the obviousness of a process or method claim”. See MPEP § 2116.01. “To support a rejection under 35 U.S.C. 103, the collective teachings of the prior art must have suggested to one of ordinary skill in the art that, at the time the invention was made, applicant's claimed invention would have been obvious.” See Id. “Motivation to make or use the nonobvious product must be present in the prior art for a 35 U.S.C. 103 rejection to be sustained” See Id.

As stated above, Hardjono merely mentions transmitting an email message using multicasting. Nowhere does Hardjono enable a multicast packet for sending a mail message. The collective teachings of Haggerty and Hardjono does not suggest to one of ordinary skill in the art that at the time the present invention was made it would have been obvious. Additionally, Hardjono is directed towards authenticating messages in a multicast and explicitly states that multicast is used to transmit messages to selected groups of users. See for example, Hardjono at col. 1, lines 13-15. Additionally, at the time the present invention, one of ordinary skill in the art would be familiar with using unicast for transmitting email and not multicast. Multicasting email messages was not well known in the art as asserted by the Examiner.

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Furthermore, Applicant points out that destinations and destination network address are different. Applicant repeats the arguments made in the previous response to further this point. The multicast packet, as claimed for Claims 1, 3, and 6, includes a packet header comprising a plurality of destination network addresses. As discussed above, the presence of the destination network addresses in the packet header allows the multicast packet to be routed through the network to the final recipient. User-level addresses such as johndoe@abc.com are not kept in the packet header, namely, they are neither physical network addresses, nor are they used to route the multicast packet through the network. Hardjono, like Haggerty, teaches traditional multicast and therefore the Applicant respectfully suggests the Examiner is incorrect when stating that "multicasting technique is well-known in the art for transmitting data messages such as email messages..." As discussed above, traditional multicast is not appropriate for the distribution of electronic mail because in traditional multicast it is the receivers individually who subscribe and determine they will be receivers in the multicast group. The sender, in traditional multicast being the multicast server and not a user, does **not** determine the receivers of a multicast packet. The sender, on the other hand, in the presently claimed invention does affirmatively determine and associate with the multicast packet who are the recipients of the electronic mail message.

Neither Hardjono, nor the Examiner has pointed out, how a sender in Hardjono can send electronic mail to receivers of his/her choice with traditional multicast. Contrary to Hardjono's assertion, conventional multicast is not used to transmit an electronic mail message to a plurality of users and traditional multicast does not usually include provision for reliable transmissions, as has been claimed for the present invention. Using multicast for email messages is not well known in the art, but is in fact well known **not** to be used to transmit email messages.

Therefore, Hardjono fails to teach "receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of destinations,

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wherein the mail message is destined for reception at each destination in the plurality of destinations as an ordinary unicast packet"; "receiving a mail message with addresses corresponding to a plurality of destinations"; and sending a single copy of the mail message, in a multicast packet and using a reliable multicast technique, across the network via at least one intermediate node to the plurality of destinations, the plurality of destinations corresponding to a plurality of destination network addresses, wherein the multicast packet includes a packet header comprising the plurality of destination network addresses, wherein at least one of the plurality of destination network addresses is a unicast address as recited for Claims 1, 3, and 6 respectively. Therefore, Claims 1, 3, and 6, distinguish over Hardjono for at least these reasons.

Continuing further, when there is no suggestion or teaching in the prior art for that disclosed in the application, the suggestion can not come from the Applicant's own specification. As the Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and Grain Processing Corp. v. American Maize-Products, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and In re Fitch, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Additionally, the Examiner recites 35 U.S.C. § 103. The Statute expressly requires that obviousness or non-obviousness be determined for the claimed subject matter as a whole and the key to proper determination of the differences between the prior art and the present invention is giving full recognition to the invention as a whole. Haggerty taken alone and/or in view of Hardjono simply does not teach or suggest receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of destinations, as recited for Claim 1; a mail message with addresses corresponding to a plurality of destinations, as recited for Claims 3 and 6; or sending a single copy of the mail message, in a multicast packet and using a reliable multicast technique, across the network via at least one intermediate node to the plurality of destinations, the plurality of destinations corresponding to a plurality of destination

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network addresses, wherein the multicast packet includes a packet header comprising the plurality of destination network addresses, wherein at least one of the plurality of destination network addresses is a unicast address, and wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet, as recited for Claims 1, 3 and 6. Therefore, Claims 1, 3, and 6, distinguish over Haggerty alone and/or in view of Hardjono for at least these reasons

The Examiner goes on to state, at page 4 of the present Office Action, that Haggerty does suggest the use of multicasting technique with unicast packets and cites col. 3, line 51, to col. 4, line 31, in support thereof. However, the Applicant respectfully disagrees. Col. 3, line 51 to col. 4, line 31 merely teaches a single multicast group address. Haggerty teaches a standard multicast which uses a Class D IP address. A Class D address is a single address for a multicast group. See the Examiner's citations at col. 3, line 51 to col. 4, line 31. In fact, Haggerty even explicitly teaches that the multicast packet only contains a single destination IP address of a multicast group. See Examiner's citation of Haggerty at col. 13, lines 10-12. Nowhere does Haggerty even suggest using unicast packets with a multicasting technique. Haggerty teaches that unicast and multicast are different and that they are treated differently.

The Examiner correctly states on page 4 of the present Office Action that Haggerty "does not explicitly teach the multicast packet includes a packet header comprising the plurality of destination network addresses wherein at least one of the plurality of destination network addresses is a unicast address". However, the Examiner goes on to combine Haggerty with Imai to overcome the deficiencies of Haggerty.

The Examiner states that "it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of unicast address in the list of destination addresses by Imai into the transmission of multicast messages/packets across the network of information processing units and intermediate nodes disclosed by Haggerty, in order to branch packets to appropriate destination and

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thus saving time for packet distribution process". The Applicant respectfully disagrees with this assertion.

Furthermore, as stated above, the Applicant has amended the Specification to claim priority from three prior co-pending applications, the earliest filed on January 29, 1999. Imai was filed on June 9, 2000. Therefore, the Applicant respectfully submits that Imai is disqualified as a prior art reference. However, additional arguments with respect to Imai are given below.

Imai explicitly teaches that multicast route information is not used, that is, multicast distribution is realized by the unicast route information only. See Imai at col. 3, lines 20-22. Imai teaches that a packet having a plurality of address lists is relayed to the packet header to be transferred according to the unicast route. Imai also includes an undistributed bitmap in the packet. Furthermore, nowhere does Imai teach, anticipate, or suggest sending a mail message in a multicast packet using a reliable multicast technique.

In contrast, Claims 1, 3, and 6, as now amended recite "receiving a mail message that is associated with a plurality of destinations; and sending a single copy of the mail message, in a multicast packet and using a reliable multicast technique, across the network via at least one intermediate node to the plurality of destinations, the plurality of destinations corresponding to a plurality of destination network addresses, wherein the multicast packet includes a packet header comprising the plurality of destination network addresses, wherein at least one of the plurality of destination network addresses is a unicast address, and wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet".

Nowhere does Haggerty alone or in combination with Imai teach or suggest the above claim elements as now recited for amended Claims 1, 3, and 6. Haggerty clearly teaches conventional multicasting using a conventional multicast packet. Haggerty alone or in any arguable combination with Imai does not teach "wherein the mail message is

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destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet" and "sending a single copy of the mail message, in a multicast packet using a reliable multicast technique, across the network via ... to the plurality of destinations, the plurality of destinations corresponding to a plurality of destination network addresses..." Conventional multicast as taught by Haggerty, and multicasting as taught by Imai, is used for transmitting a large amount of data to multiple destinations that subscribe to the multicast server. This is different than the transmitting of an electronic mail message, as recited for Claims 1, 3, and 6. Furthermore, nowhere does Haggerty alone or in combination with Imai teach a reliable multicast technique for sending a multicast packet including a mail message. Imai is completely silent on a reliable multicast technique. Nowhere does Haggerty teach using a reliable multicast technique "wherein the multicast packet includes a packet header comprising the plurality of network destination addresses, wherein at least one of the pluralities of network destination addresses is a unicast address".

Continuing further, when there is no suggestion or teaching in the prior art for "receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of destinations; and sending a single copy of the mail message, in a multicast packet and using a reliable multicast technique, across the network via at least one intermediate node to the plurality of destinations, the plurality of destinations corresponding to a plurality of destination network addresses using a reliable multicast technique, wherein the multicast packet includes a packet header comprising the plurality of destination network addresses, wherein at least one of the plurality of destination network addresses is a unicast address, and wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet", the suggestion can not come from the Applicant's own specification. As the Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and *Grain Processing Corp. v. American Maize-Products*, 840 F.2d

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902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and *In re Fitch*, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Moreover, the Federal Circuit has consistently held that when a § 103 rejection is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference, such a proposed modification is not proper and the *prima facie* case of obviousness cannot be properly made. See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Here the intent, purpose, and function of Haggerty taken alone or in view of Imai is multicasting using a conventional multicasting packet. Because Imai explicitly teaches that multicast route information is not used, that is, multicast distribution is realized by the unicast route information only, this combination as suggested by the Examiner destroys the intent and purpose of Haggerty's intent of conventional multicasting, which uses multicast route information. In contrast, the intent of the present invention is using a multicast packet to deliver an email message to a plurality of destinations as an ordinary unicast packet. Accordingly, the combination of Haggerty and Imai results in an inoperable system. Therefore, the Examiner's case of "*Prima Facie Obviousness*" should be withdrawn.

Furthermore, the Federal Circuit stated in *McGinley v. Franklin Sports, Inc.*, (Fed Cir 2001) that if references taken in combination would produce a "seemingly inoperative device," such references teach away from the combination and thus cannot serve as predicates for a *prima facie* case of obviousness. *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969) (references teach away from combination if combination produces seemingly inoperative device); see also *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (inoperable modification teaches away). Here, Haggerty teaches multicasting using a conventional multicasting packet and Imai teaches an incompatible system where multicast route information is not used. Therefore, the combination of Haggerty with Imai to produce the presently claimed

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invention where a multicast packet is used to deliver an email message to a plurality of destinations as an ordinary unicast packet would produce an inoperable device. Accordingly, the combination of Haggerty and Imai is improper.

Therefore, Haggerty alone and/or in combination with Hardjono and/or in combination with Imai does not teach, anticipate, or suggest the present claimed invention. Applicant believes that the rejection of Claims 1, 3, and 6 under 35 U.S.C. § 103(a) has been overcome. Applicant requests that the Examiner withdraw the rejection and allow Claims 1, 3, and 6.

Regarding Claims 8, 13, and 17, the Examiner concluded that Haggerty teaches the present invention as recited for Claims 8, 13, and 17 and cited several paragraphs in Haggerty in support thereof. Applicant respectfully disagrees with the Examiner. In particular, the Examiner concluded that Haggerty teaches the following in Claims 8, 13, and 17:

“receiving a mail message in a multicast packet including a plurality of destination network addresses”

As discussed above, Haggerty does not teach “receiving a mail message in a multicast packet including a plurality of destination network addresses”, Haggerty teaches a single multicast group address, which is not a destination network address. Accordingly, the arguments above with respect to Claims 1, 3, and 6 are applicable here and will not be repeated.

The Examiner also concluded that Haggerty teaches the following in Claims 8, 13, and 17:

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"determining one or more 'next hops' corresponding to the plurality of destination network addresses in the packet header for forwarding the packet"

The Examiner relied upon col. 12, line 55 to col. 13, line 9 of Haggerty, to reject the above step.

Applicant respectfully disagrees with the Examiner's conclusion that Haggerty teaches the above step of the present invention and highlights the arguments made in the previous Response With Amendment dated May 25, 2005. Haggerty merely discloses a prior art LAN packet, IP packet, and IP Multicast packet (which only contains a single address for a multicast group). As stated above, the IP multicast packet does not contain an IP destination host address (See for example, Haggerty at col. 13, lines 10-12) so the multicast packet only identifies the multicast group to the MCast router. Therefore, the MCast router has to use its own internal knowledge of its local hosts to determine where to send a copy of the packet. See Haggerty at col. 11, lines 60-67. When the MCast router receives the IP multicast packet, it looks at the single multicast group address and determines whether any of its local hosts have subscribed to that multicast group address. If the MCast determines that a local host has subscribed to the multicast group address that was included in the multicast packet, the MCast router sends a single copy onto the local subnet where the local subscriber will receive that packet. See for example, Haggerty at col. 12, lines 1-15. In other words, Haggerty does not teach including destination network addresses within a multicast packet header and using these destination network address to forward the packet. Accordingly, Claims 8, 13, and 17, distinguish over Haggerty for at least this reason.

The Examiner goes on to state that Haggerty does not explicitly teach distributing electronic mail message across the network using multicast technique, but does suggest the use of multicasting in transmission of messages/packets over the Internet such as transmission of corporate messages to employees. Applicant respectfully disagrees;

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Haggerty does not disclose sending the mail message in a multicast packet including a plurality of destination network addresses, which are the physical addresses of the destinations. Nor does Haggerty teach that a destination network address receives the mail message as an ordinary unicast packet. Therefore Claims 8, 13, and 17, distinguish over Haggerty for at least this reason.

The Examiner goes on to repeat his assertion from the previous Office Action that Hardjono discloses that multicasting is well-known in the art for transmitting data messages such as email messages to selected groups of users across a network like the Internet and relied upon the Abstract and col. 1, lines 13-25 of Hardjono in support thereof. Applicant respectfully disagrees with the Examiner and the arguments made above with respect to Claims 1, 3, and 6 are likewise applicable here and will not be repeated.

The Examiner also goes on to combine Haggerty with Imai to overcome over Haggerty's deficiency of not teaching a multicast packet header including a plurality of destination network addresses. As stated above, the Applicant submits that Imai has been disqualified as a prior art reference and the arguments and remarks made above with respect to "destination network address" and the arguments made above with respect to Claims 1, 3, and 6 are likewise applicable here and will not be repeated.

Additionally, Claims 10, 14-15, 18-19, depend from Claims 8, 13, and 17, respectively, and, since dependent claims recite all of the limitations of the independent claim; it is believed that, therefore, Claims 10, 14-15, 18-19 also recite in allowable form.

Therefore, in view of the amendment and foregoing remarks, Applicant believes that the rejection of Claims 8, 10, 13-15, and 17-19 under 35 U.S.C. § 103(a) has been overcome. Applicant requests that the Examiner withdraw the rejection and allow Claims 8, 10, 13-15, 17-19.

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(4) Turning now to Claims 2, 4, 7, 9, and 12, the Examiner rejected these claims under 35 U.S.C. § 103(a), as being unpatentable over Haggerty et al. (U.S. Patent No. 6,331,983) in view of Hardjono (U.S. Patent No. 6,643,773), and further in view of Imai et al. (U.S. Patent No. 6,862,279), and further in view of Boivie et al., "Small Group Multicast: A New Solution for Multicasting on the Internet", IEEE, May-June 2000.

Regarding Claims 2, 4, 7, 9, and 12, the Examiner correctly concluded that Haggerty, Hardjono, and Imai do not explicitly teach using Small Group Multicast, as recited by Claims 2, 4, 7, 9, and 12. However, the Examiner repeated the argument of the previous Office Action and stated that Haggerty does suggest the use of IGMP for managing requests to join a multicast group(s) and receive multicast traffic. The Examiner cited Haggerty at col. 3, lines 21-29 and col. 4, lines 56-61 in support thereof. The Examiner also stated that the Boivie et al. reference discloses the use of multicasting data transmissions with a SGM scheme and cited page 75, third column and pages 77-78 of the Boivie et al. reference in support thereof. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate small group multicast, as disclosed by SGM, into the transmission of multicast messages/packets across the network of information processing units and intermediate nodes, as disclosed by Haggerty.

Applicant respectfully disagrees with the Examiner. As discussed above, Applicant has amended Claims 1, 3, and 6 to more clearly recite the present invention. Claims 1, 3, and 6, and accordingly dependent Claims 2, 4, and 7, which depend from Claims 1, 3, and 6, respectively, more clearly "wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet". Claims 9 and 12 depend from Claim 8 and therefore, also recite the novel aspects of the present invention as recited for Claim 8.

As has already been discussed above with respect to the rejection of Claims 1, 3, and 6 and 8, 13, and 17, based on the teachings of Haggerty in view of Hardjono and in

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further view of Imai, neither cited reference nor any combination thereof teaches, anticipates, or suggests, the presently claimed mail message in a multicast packet including a packet header comprising a plurality of destination network addresses; at least one of the destination network addresses of the plurality of destination network addresses being a unicast address; or wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet. Note that Haggerty explicitly teaches that the multicast packet is comprised of a single multicast group address. Haggerty and Hardjono also do not teach using a reliable multicast technique in which a multicast packet includes a plurality of destination network addresses, e.g., physical addresses. Imai explicitly teaches that multicast route information is not used and makes no mention of using multicasting techniques with mail messages.

Additionally, the Examiner's reliance on Haggerty suggesting IGMP is misplaced for the following reasons given in the Previous Response With Amended dated May 25, 2005: IGMP is used by multicast routers to learn the existing host group members on their directly attached subnets. See Haggerty at col. 4, lines 57-59. IGMP uses a single multicast group address and therefore, precludes using Small Group Multicast, which uses a plurality of destination network addresses, i.e. unicast addresses.

Applicant also repeats the following arguments from the previous Response With Amended dated May 25, 2005. The Boivie et al. reference, does not teach how to implement a reliable multicast technique based on Small Group Multicast. The Boivie et al. reference merely states that it is possible to adapt SGM to support reliable multicast, the reference is not enabling with respect to this statement. Also, the Boivie et al. reference does not address mail messages, but instead specifically discusses IP multicasting and SGM where users can join multicast groups. Nowhere does the reference teach, anticipate, or suggest, using multicast for an electronic mail system, especially as recited for the presently claimed invention. Note that in the present invention, the sender is determining who the receivers will be. This is different than

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traditional IP multicast because in traditional IP multicast the receivers actively seek out the information to be received by subscribing to a multicast group. The sender of the information does not identify the receivers, only a specific multicast group.

Furthermore, the Examiner recites 35 U.S.C. § 103. The Statute expressly requires that obviousness or non-obviousness be determined for the claimed subject matter as a whole and the key to proper determination of the differences between the prior art and the present invention is giving full recognition to the invention as a whole. Haggerty taken alone and/or in view of Hardjono and/or in view of Imai and/or in view of Boivie et al. simply does not teach or suggest using Small Group Multicast as recited for the presently claimed invention.

Also, when there is no suggestion or teaching in the prior art for that disclosed in the application, the suggestion can not come from the Applicant's own specification. As the Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and *In re Fitch*, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Therefore, in view of the foregoing remarks, Applicant believes that the rejection of Claims 2, 4, 7, 9, and 12, under 35 U.S.C. § 103(a) has been overcome. Applicant requests that the Examiner withdraw the rejection and allow Claims 2, 4, 7, 9, and 12.

(S) The Examiner rejected Claims 5, 11, 16, and 20 under 35 U.S.C. §103(a), as being unpatentable over Haggerty et al. (U.S. Patent No. 6,331,983) in view of Hardjono (U.S. Patent No. 6,643,773), and in further view of Imai et al. (U.S. Patent No. 6,862,279), and in further view of Provino et al. (U.S. Patent No. 6,269,085).

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Regarding Claims 5, 11, 16, and 20, the Examiner correctly concluded that Haggerty, Hardjono, and Imai do not explicitly teach processing ACKs/NAKs and packet retransmissions, as recited for Claims 5, 11, 16, and 20. The Examiner also stated that Hardjono suggests the use of acknowledgements received from neighbor nodes and that Provino discloses multicast transmission with ACKs/NAKs and retransmission of data packets. The Examiner concluded that therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate ACKs/NAKs and performing packet retransmissions, as disclosed by Provino, into the transmission of multicast messages/packets across the network of information processing units and intermediate nodes, as disclosed by Haggerty.

Claims 5, 11, 16, and 20 depend from Claims 3, 8, 13, and 17 respectively. As discussed above, neither Haggerty, Hardjono, Imai, nor any combination thereof, teaches, anticipates, or suggests, the presently claimed mail message in a multicast packet including a packet header comprising a plurality of destination network addresses... wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet as recited for Claim 3 and similarly for Claims 8, 13, and 17. Note that Haggerty explicitly teaches that the multicast packet is comprised of a single multicast group address and that Imai teaches that multicast routing information is not used. Haggerty and Hardjono also do not teach using a reliable multicast technique in which a multicast packet includes a plurality of destination network addresses, i.e. unicast addresses (See Claim 3, 6, 8, 13, and 17).

With respect to Provino, the Examiner relied upon col. 1, lines 10-21, and col. 2, lines 5-11, to reject Claims 5, 11, 16, and 20. The Examiner's reliance upon the citations of Provino is misplaced for the following reasons as stated in the Previous Response With Amendment dated May 5, 2005. Col. 1, lines 10-21, line 15, merely discloses standard multicast (multicast packet with a single multicast group address) and a repair tree that includes repair heads that receive ACKs and NAKs. Col. 2, lines 5-11, merely discloses that the receiver and intermediate nodes at each level of the repair tree, from time to time,

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forward to their respective repair heads flow control messages in the form of ACK/NAK messages.

There is no mention in any of the relied upon citations of Provino of “a multicast packet including a packet header comprising a plurality of destination network addresses” and “wherein the mail message is destined for reception at the destination corresponding to the unicast address as an ordinary unicast packet”, as recited for independent Claims 3, 8, 13, and 17, which Claims 5, 11, 16, and 20 depend from respectively. Provino explicitly teaches that a multicast packet is sent to a multicast group address. See for example, Provino at col. 1, lines 13-14 and lines 65-66; col. 3, lines 42-43. Therefore, Provino teaches a multicast packet with a single multicast group address and not a plurality of destination network address, as recited for Claims 3, 8, 13, and 17 and accordingly Claims 5, 11, 16, and 20.

Additionally, nowhere does Provino disclose that at least one of the destination network addresses of a plurality of destination network addresses is a unicast address, as recited for Claims 3, 8, 13, and 17 and accordingly Claim 5. Nor does Provino teach determining next hops for a destination network address of the plurality of destination network address in the packet header, as recited for Claims 8, 13, and 17 and accordingly Claims 11, 16, and 20. Therefore, Claims 3, 8, 13, and 17 and accordingly Claims 5, 11, 16, and 20 distinguish over Provino for at least these reasons.

Furthermore, the Examiner recites 35 U.S.C. § 103. The Statute expressly requires that obviousness or non-obviousness be determined for the claimed subject matter as a whole and the key to proper determination of the differences between the prior art and the present invention is giving full recognition to the invention as a whole. Haggerty taken alone and/or in view of Hardjono and/or in view of Imai and/or in further view of Provino simply does not teach or suggest the present invention as recited for Claims 3, 8, 13, and 17 and accordingly Claims 5, 11, 16, and 20.

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Continuing further, when there is no suggestion or teaching in the prior art for that disclosed in the application, the suggestion can not come from the Applicant's own specification. As the Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and *In re Fitch*, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Therefore, in view of the foregoing remarks and amendments, Applicant believes that the rejection of Claims 5, 11, 16, and 20 under 35 U.S.C. § 103(a) has been overcome. Applicant requests that the Examiner withdraw the rejection and allow Claims 5, 11, 16, and 20.

Other References Cited

Applicant has reviewed Samuel et al. (U.S. Patent No. 6,018,766) and believes that the reference taken alone or in combination with the references cited above does not teach, anticipate, or suggest, the presently claimed invention.

Conclusion

The foregoing is submitted as a full and complete response to the Official Action mailed August 12, 2005, and it is suggested that Claims 1-20 are in condition for allowance or alternatively are in better form for appeal. Reconsideration of the rejection is requested. Allowance of Claims 1-20 is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing

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the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicant acknowledges the continuing duty of candor and good faith to disclose information known to be material to the examination of this application. In accordance with 37 CFR § 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicant and his attorneys.

The present application, after entry of this amendment, comprises twenty (20) claims, including six (6) independent claims. Applicant has previously paid for twenty (20) claims including six (6) independent claims. Applicant, therefore, believes that an additional fee for claims amendment is currently not due.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, or that in any way it would help expedite the prosecution of the patent application, a telephone call to the undersigned at (561) 989-9811 is respectfully solicited.

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The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account **50-0510**.

In view of the preceding discussion, it is submitted that the claims are in condition for allowance. Reconsideration and re-examination is requested.

Respectfully submitted,

By: 
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Date: November 14, 2005

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